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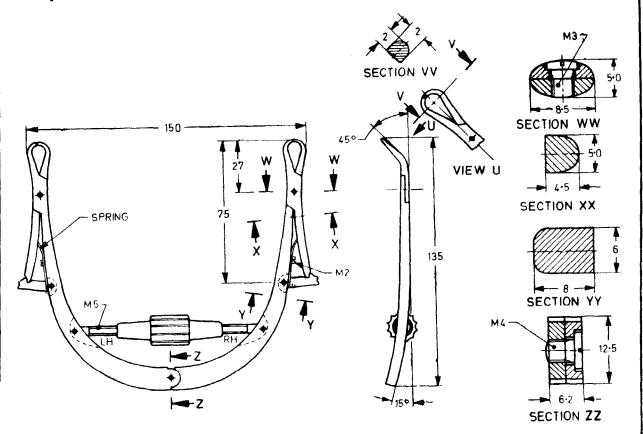




Indian Standard

SPECIFICATION FOR RETRACTOR, GOITRE, JOLL'S PATTERN

- 1. Scope Dimensional and other requirements for Joll's pattern Goitre retractor used for retraction during thyroid surgical operations.
- 2. Shape and Dimensions As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 RETRACTOR, GOITRE, JOLL'S PATTERN

- 2.1 A deviation of \pm 2.5 percent shall be allowed on all dimensions.
- 3. Material Stainless steel conforming to Designation 30Cr13 of IS: 6603-1972 'Specification for stainless steel bars and flats'.

4. Workmanship and Finish

- 4.1 The retractor shall be free from rough edges, pits, cracks, burrs, seams and other surface defects.
- 4.2 The threads and serrations, wherever provided, shall be well formed and cleaned.
- 4.3 The retractor shall have two forceps at each end for holding the skin. The holding end of the forceps shall be made pointed.
- 4.4 All other edges shall be smooth and even.
- 4.5 The retractor at hinge shall move smoothly and freely when operated by an adjusting screw.

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- 4.6 The joint in the forceps shall work smoothly and shall not have any undue play. It shall satisfy the requirements given in Section 2 of IS: 3642-1966 'General requirements for surgical . Instruments'.
- 4.7 The forceps shall be held in position by ratchet arrangement, as shown in Fig. 1.
- 4.8 The retractor shall be polished bright and passivated.
- 4.9 The retractor shall be capable of being opened to 150 mm from a minimum opening of 10 mm.
- 5. Heat Treatment The retractor shall be hardened and tempered to give a hardness of 430 to 490 HV.

6. Tests

6.1 Flexibility

- **6.1.1** Hold one arm of the retractor in a suitable vice and apply a pull of 200 N on the other arm at a place near the joint of the holding forceps. Keep the force for five minutes. At the end of the test, the retractor shall not get damaged or take a permanent set.
- 6.1.2 Flexibility Test for Forceps Hold the forceps at its joints in a suitable vice so that 27 mm of its arm protrudes above the vice. Apply a force at the tip of the pointed end so as to deflect it by 5 mm. Repeat the test on the other arm. On completion of the test, no permanent set shall be observed. The test is to be conducted on the other forceps in the similar way.
- **6.2** Corrosion Resistance Test the retractor in accordance with IS: 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. There shall be no sign of corrosion after the test.
- 7. Marking The retractor shall be marked with the manufacturer's name, initials or recognized trade-mark.
- 7.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 8. Packing As agreed to between the purchaser and the supplier.

